

95 and 105 are independent. Favorable reconsideration is requested.

The specification has been amended to accommodate the renumbering the parts of Figs. 5 and 13 to comply with the Drafting Branch requirement set out in the form PTO-948.

Claims 66-68, 70, 71, 73-75, 77, 78 and 80-105 were rejected under 35 U.S.C. § 103(a) as being obvious from U.S. Patent 5,398,311 (Seto) in view of U.S. Patents 4,897,638 (Kokunishi et al.) and 5,562,350 (Sakurai).

Independent Claim 66 is directed to an outline forming apparatus comprising means for storing pattern data which includes coordinate data corresponding to a first outline point of a pattern having a first weight, and vector information corresponding to the first outline point, the vector information including a function of weight, which indicates a curve of second degree or more on which the first outline point moves to a second outline point of a pattern having a second weight. The apparatus also has means for inputting weight, and generating means for obtaining a moved outline point by moving the first outline point based on the input weight and said function, and generating an outline of a pattern having the input weight based on the moved outline point.

Thus, one important feature or the aspect of the invention recited in Claim 66 is, that a function of weight, which indicates a curve of second degree or more on which a

first outline point of a pattern having a first weight moves to a second outline point of a pattern having a second weight, is stored, and also, a pattern is generated that has a designated weight based on a moved outline point obtained by moving the first outline point based on the function and the designated weight. (This is illustrated, purely by way of example and without limiting the scope of Claim 66 to the details of this example, in Figs. 10-13.)

By virtue of this feature, since the outline point moves on a curve of second or higher degree, a natural character pattern can be obtained for each weight (see the present application at page 20, lines 22-25).

It is not thought to be necessary to repeat in full detail the discussion in Applicant's response to the previous Office Action, and only certain points will be mentioned.

Seto relates to an apparatus in which a contour point is moved on a straight line in conjunction with weight.

Kokunishi relates to an apparatus in which an outline characteristic point is moved on a straight line based on an input weight, as shown in Fig. 5. According to the approach, a Bézier curve is used for interconnecting outline points. However, the Bézier curve is used for defining outline of a pattern, and, such Bézier curve function is completely different from a function of weight, which indicates the moving path of an outline point.

Sakurai relates to an apparatus in which are stored a plurality of vector font data, and in which vector font data are stored in conjunction with desired character size. In *Sakurai*, Applicant submits that there is no idea of storing a function of weight which indicates a moving path of an outline point.

Even if *Seto* and *Kokunishi* be deemed to show moving an outline point on a straight line in conjunction with weight, Applicant submits that nothing in these cited references would teach or suggest moving an outline point based on a function of weight, which indicates a curve of second degree or more on which an outline point moves.

Accordingly, at least for this reason, Claim 66 is believed patentable over *Seto*, *Kokunishi* and *Sakurai*, taken separately or in any proper combination.

Claims 73 and 80 are method and memory medium claims corresponding to apparatus Claim 66, and therefore are believed to be patentably distinct from the cited prior art for the same reasons as Claim 66.

Independent Claim 85 is directed to an outline forming apparatus comprising means for storing pattern data which includes coordinate data corresponding to a first outline point of a pattern having a first weight, and vector information corresponding to the first outline point, the vector information indicating a path on which the first outline point moves to a second outline point of a pattern

having a second weight. The vector information includes a plurality of functions of weight, which indicate a plurality of different lines defining the path, and the vector information includes change information indicating which function is to be used for each weight. Also, the apparatus has means for inputting weight of a pattern, and means for determining a function to be used based on the change information and the input weight. Also recited is means for obtaining a moved outline point by moving the first outline point based on the input weight and the function determined to be used, and generating an outline of a pattern having the input weight based on the moved outline point.

Thus, one important feature of an apparatus constructed according to Claim 85, is that there are stored vector information including a plurality of functions which indicate different lines forming a path on which an outline point moves, and change information indicating which function is to be used for each weight. Also, a determination is made as to which function is to be used based on the change information and designated weight, and an outline is generated based on a moved outline point obtained by moving an outline point based on the determined function and the designated weight. (This is illustrated, again purely by way of example and without limiting the claim scope to the details of this example, in the fifth embodiment described in the present application and shown in Figs. 5 and 24.)

The *Seto* and *Kokunishi* approaches use only one straight line on which each outline point moves in conjunction with weight. Applicant submits that nothing in *Sakurai* would teach storing a function of weight which indicates a moving path of an outline point. Furthermore, according to the *Sakurai* method, since a plurality of complete vector data set must be stored, the memory capacity required for storing pattern data becomes large. Applicant strongly urges, therefore, that nothing in these references would teach or suggest changing functions indicating a moving path of an outline point in conjunction with weight.

Accordingly, at least for this reason, Claim 85 is believed patentable over *Seto*, *Kokunishi* and *Sakurai*.

Claims 95 and 105 are method and memory medium claims corresponding to apparatus Claim 85, and therefore are believed to be patentably distinct from the cited prior art for the same reasons as Claim 85.

A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the

individual reconsideration of the patentability of each on its own merits is respectfully requested.

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,


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